

TITLE OF THE PROJECT:

**SAFE AND FRIENDLY URBAN ENVIRONMENT FOR
FUTURE GENERATIONS**

SUBMITTED BY:

*IVANO-FRANKIVSK CITY COUNCIL (UKRAINE)
DEPARTMENT OF ECONOMIC DEVELOPMENT AND INTEGRATION*

PREPARED BY: GANCHAK TARAS

*POSITION: SPECIALIST OF THE DEPARTMENT OF THE ECONOMIC DEVELOPMENT
AND INTEGRATION*

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PREFACE

I live in my city. I love my city. I would like my kids to go to school and to spend their vacations here, practice sport, plant trees, ride a bicycle. The city is friendly and hospitable with scars from history related events, it is my friend. The city is green, I would like it to be even greener but I must protect it as well, protect from myself, from my neighbors, from my family. It is a time consuming and pain taking task, no doubt I am well aware of this challenge; nevertheless this mission is worth being accomplished as it is for my kids, for neighbour's kids, for future generation. I need to think globally and act locally. The first step is the most complicated but together we could transform it into lovely spot for citizens and guests.

1. Description of the Project

The given project under the title *Safe and Friendly Environment for Future Generations* is intended to raise pupils awareness concerning improvement of environmental situation in two administrative-territorial units: the City of Ivano-Frankivsk and the village of Rybne. The project involves the following target groups:

a) *primary* - pupils of the secondary and primary schools of the City of Ivano-Frankivsk,

The primary group (pupils) will be involved into action through participation in classes dedicated to environment protection and preservation. They will watch the film and then write essays about existing environmental dangers in their boroughs. They are expected to make a presentation of their essays and discussion of environmental problems. The main message is to concentrate pupils' attention on necessity to sort waste in their households.

b) *secondary* – parents, teachers, other residents of the city, stakeholders.

It is natural that the school teachers will be directly involved into the mentioned action. Their task is to be mediators between environment, pupils and parents. The chain reaction of social awareness is expected to be provoked. It is important that these three elements teachers-pupils-parents work together; in this case we expect mutual feedback.

Objectives of the project is a) to raise pupils' awareness concerning necessity to sort municipal waste and to bring up respect to the environment.

b) to pass along the message through children to their parent, and raise their awareness accordingly.

c) to show the unexpected and undesirable harmful impact of non degradable waste and leachate on the environment.

Aims of the project

- to make a film about landfill and to show it in the schools;
- to publish a brochure (500 copies) and to hand out copies in schools among the youngest and school leaver;
- to involve pupils in local campaign for environment protection;
- to disseminate information of harmfulness of unsorted waste;

Long terms perspectives triggered by successful implementation of the given project

- to make public the problem of possible leakage of leachate,

- to prevent future leakage of lechate and to implement all possible means available to secure save management of the landfill
- to use the film as a sort of publicity that preaches clean environment, to broadcast the film on local TV channels.
- to involve foreign experience into solution of the landfill issue
- to attract stakeholders dealing with recycling of MSW and to discuss the possibility of construction of waste processing plant on the territory of the landfill,
- to recover buried waste and to recultivate existing areas of the landfill

Expected results –

- a) pupils of 10 schools will watch the film about landfill and necessity to make separate sorting of waste.
- b) Parents under the “pressure of children” will pay more attention to the separate collection.
- c) improved environmental situation with the city and in the village.
- d) reduced volume of waste and sequentially volume of leachate.

Ivano-Frankivsk in a nutshell

The city of Ivano-Frankivsk is the center of Ivano-Frankivsk region (administrative territorial unit) in the western part of Ukraine with population about 240 thousand inhabitants including agglomeration of four villages. The city is located in the foothills of the Carpathian Mountains between two mountain rivers the Bystrica-Solotvinskoy and the Bystrica-Nadvornyanskoy (the Dniester River Basin), at an altitude of 244 m. The city was founded in 1662 by Polish noble Pototsky and named after his son Stanislav, in 1962 in was renamed into Ivano-Frankivsk after the name of a great Ukrainian writer Ivan Franko.

Today Ivano-Frankivsk is the city with considerable industrial, economic and scientific potential, with extensive opportunities for the development of both domestic interregional and foreign intergovernmental relations.

During the Soviet Union period the access to the city was restricted for foreign visitors as Ivano-Frankivsk Region was considered to be a strategic defensive military point and middle-range missiles SS 20 were deployed here. After the collapse of the Soviet Union the city became a visit card for guests and an entrance door to the Carpathian Mountains.

Naturally after the collapse of the Soviet Union the City inherited a lot of issues that required immediate solution. Among the first issues on the top of the priorities list were public utilities, comprising waste management and big state or communal enterprises that stopped working due to lack of demand (some enterprises were military oriented).

The waste management scheme of the Soviet Union represented collection of all waste, including hazardous waste like mercury, zinc and its disposal on the certain territory. The current waste disposal scheme represent controlled disposal according to designed project. However, such disposal is not as innocent and environment friendly as it is in other European countries and needs to be upgraded according to European standards.

From the interview with the director of the landfill “Poligon TPV” we got to know that the most dangerous waste fraction is plastic bottles and packaging. They represent roughly about 25% of total waste volume. The problem is that this waste is not biodegradable and it takes the Mother Nature hundreds of years to digest it and to transform into environment friendly substance.

Rybne in a nutshell

The village of Rybne, founded in 1665, is located about 14 km from Ivano-Frankivsk. The city was completely destroyed by the Soviet regime because during the Second World War the surrounding forests hosted the Ukrainian Insurgent Army that was fighting for independence of Ukraine. So in order to revenge the Red Machine swept it away but in 1951 it was reconstructed by the rest of the community that was deported. Currently the population of the village is 330 inhabitants. The village could never have drawn the public attention but the landfill for municipal solid waste is located here. The landfill “Poligin TPV (in Ukrainian “landfill for municipal solid waste”) is located in the forest of Village Rybne and has been in operation since 1992. Ivano-Frankivsk municipality has signed a land lease agreement with the village of Rybne and owns the territory on lease basis. The subject of lease is the plot of land, used by Ivano-Frankivsk municipality as waste disposal site and is managed by the municipality of Ivano-Frankivsk. The plot of land was not chosen without previous analysis and incidentally, the seven meter clay layer provides natural isolation of leachate from percolation into ground waters. That’s to say the leachate does not percolate into ground water and does not contaminates drinking water of the local community.

Waste disposal site

The disposal on the municipal waste is conducted in the following way – the garbage trucks unload waste, then it is compacted by bulldozers and covered with a layer of land, the same operation is repeated until the check plot is completely filled. Once the check plot is filled the recultivation program that envisages planting of trees is implemented.

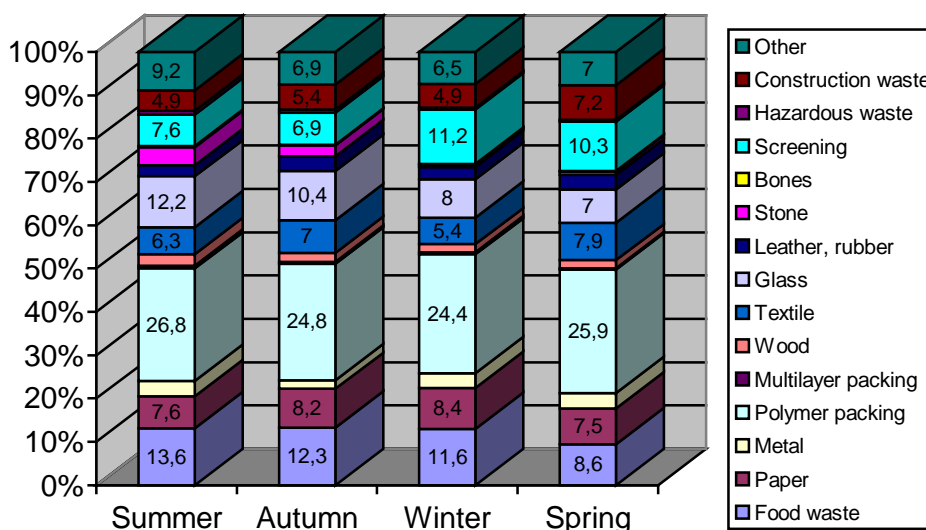
Sometimes the scavengers pick up plastic bottles and other valuable waste such as scrap, wood, etc.

The problem with the landfill is that the territory reduces every year, as about 440 thousand cubic meters of waste is disposed annually. As the result the danger of leakage of lechate into local river increases dramatically. Within previous years the check plots were not

filled with waste and leachate was stored in the available check plots. Currently the leachate is stored in two checks and one more check is being prepared. This year Ivano-Frankivsk region suffered from constant heavy rains and the leachate level in the check rose by 2 meters.

The local municipality understands that the percolation of leachate may have a disastrous effect on the environment but cause of lack of financial resources the issue stays untouched. From time to time the leachate is pumped out to the local sewage treatment facilities of Ivano-Frankivsk. The pipe line represents a military mobile pipe that is put together in spring and put apart in autumn.

Average municipal solid waste composition in Ivano-Frankivsk (according to weight)



It is worth being mentioned that toxic waste (batteries, dissolvent) constitutes about 1% of MSW. According to the results of four seasonal research, the average composition of municipal solid waste may be estimated in the following way:

| % according to weight | Fraction |
|-----------------------|------------------------|
| 14% | Food waste |
| 7.9% | Paper |
| 3.0% | Metal |
| 26% | Polymer packing |
| 0.4% | Multilayer packing |
| 2.0% | Wood |
| 6.9% | Textile |
| 9.4% | Glass |
| 3.0% | Leather, rubber |
| 4.0% | Stone |
| 0.1% | Bones |
| 9.0% | Screening |
| 0.6% | Hazardous waste |
| 6.7% | Construction waste |
| 7.0% | Other |
| 100% | |

Sleeping danger for local community

The leakage of leachate represents a serious danger for local community. Taking into account the fact that this year percentage of precipitations in June almost doubled the risk of percolation has doubled accordingly. As the result of heavy meteorological conditions a vast territory of Ivano-Frankivsk Region (region is an administrative-territory unit) has been inundated. .

The municipality aims to reduce the volume of leachate by reducing a volume of waste. Today when financial resources are required we involve communities into awareness campaign in order to reduce the volume of waste on the sites of its generation – households.

Lose of identity

The village of Rybne was founded in 1645, as every village in the Pre-Carpathian Region has their own traditions, customs and holidays. The population of village is 330 inhabitants with population density 15.4 inhabitant per 1 square km.

This year in April there occurred the leakage of leachate from the landfill lake into the local river. About 5 cubic meters of leachate were thrown into the local river. The estimated damages are about 20 thousand UAH (\$ 2.5 thousand US). The question of future leakage is just a question of time. In the worst cases if the volume of leachate will rise significantly, the water in the river will be poisoned and some species of fish and mammals will be endangered. The local population will be obliged to leave their households and to resettle elsewhere, leaving their houses, gardens, planted by their ancestors, stay far away from native land. They will lose their identity and will feel rejected and forgotten. It is quite possible that some of them will refuse to be resettled and will continue to live in the contaminated area. Without exaggeration the area may be considered as a *dead zone* not suitable for living at all. It is the scenario of local doomsday film, we try to predict the worst in order to assume measures that will eliminate danger. Prevention methods are always cheaper and we would like to use them.

Thus coming out from abovementioned we propose the following solutions:

1. Obtain a sufficient financial support from the government or other sources and to construct special facilities that will cope with leachate on the spot.
2. Reduce the volume of waste and sequentially reduce the volume of leachate.
3. In order to reduce the volume of waste to organize public awareness campaign among secondary educational establishments
4. One of the tools in the campaign is envisaged to be a show in schools a coverage about landfill and future possible dangers.

5. Broadcast of the coverage on local TV channel that will help raise public awareness of the residents of Ivano-Frankivsk
6. Publish and distribute the brochures about necessity to sort waste on household level
7. Organize contests dedicated to protection of environment among pupils at schools and kindergartens,

The most suitable and available and minimum fund required solution is to raise public awareness about necessity to reduce volume of disposed waste and to practice separate sorting. In order to do so the campaign is envisaged to be organized.

Quite good results could be achieved through broadcast of coverage (film duration 10 minutes or a series of clips) in publicity hours.

Description: Instead of watching dull and long publicity the TV will broadcast clips about landfill, harmful effect in future. In this case the viewers will concentrate their attention on the most important of all – environment, place where they live, have a rest, make barbecue, play with their children, plant trees etc. This is powerful instrument that may change people’s attitude towards surrounding environment.

The next action of campaign is organization of contests in kindergartens.

Description: kids draw pictures, make up poems, tell stories about the way their parents respect the nature. They are instructed how to sort waste, why is it important to squash the plastic bottle before throwing it into the trash bin.

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Outline of the project

Title of the project “SAFE AND FRIENDLY ENVIRONMENT FOR FUTURE GENERATIONS”

Budget for the project - 8 000 pounds.

Project products – 10 minutes film (series of clips) about landfill and separate waste collection, **500 brochures** “Just count to three” (three factions that could be sorted - paper, plastics and glass)

Duration of action - 12 month (January 2011 – December 2012)

Stakeholders – schools (staff and pupils), kindergartens (staff and kids), households (parents), municipality of Ivano-Frankivsk.

Partners involved – local TV channel “Halychyna” will be in charge of making and broadcasting the film. As well as writing a script according to the proposed idea (idea may be represented separately in order to avoid plagiarism), local theatres “Kosmos’ and “Lumiers”.

Recipients – community of the city of Ivano-Frankivsk and the community of the village Rybne.

ACTIVITIES WITHIN FRAMEWORK OF PROJECT IMPLEMENTATION

| № | Name of activity | Duration period 12 month | | | | | | | | | | | |
|----|--|--------------------------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|
| | | January | February | March | April | May | June | July | August | September | October | November | December |
| 1 | Collection of information about landfill (volume of waste, leachate, possible dangers), experts' conclusions | ■ | ■ | | | | | | | | | | |
| 2 | Design of script | ■ | | | | | | | | | | | |
| 3 | Approval of script | | ■ | | | | | | | | | | |
| 4 | Film making | | | ■ | ■ | ■ | ■ | ■ | | | | | |
| 5 | Preparation of final version of the film | | | | | | | | ■ | | | | |
| 6 | Approval of timetable of film release at schools | | | | | | | | ■ | | | | |
| 7 | Introduction of the film in local cinemas | | | | | | | | | ■ | | | |
| 8 | Presentation of the film to pupils at schools | | | | | | | | | ■ | ■ | ■ | |
| 9 | Organization of contest in the kindergartens | | | | | | | | | | | ■ | |
| 10 | Design and publishing of the brochure | | | | | | | | | ■ | ■ | ■ | |
| 11 | Preparation of reports and dissemination of experience – December | | | | | | | | | | | | ■ |

BUDGET FOR THE ACTION

| № | Costs | Currency | Unit | № of Units | Required financial resources |
|---|--|---------------------|----------|------------|------------------------------|
| 1 | Design of script | pound | Per unit | 1 | 1000 |
| 2 | Film making duration 10 mns. Or 5 series*duration 2 mns. | pound | Per unit | 1 (5) | 3000 |
| 3 | Design and publishing of the brochure | pound | Per unit | 5000 | 5000 |
| | <i>Total budget costs</i> | <i>pound</i> | | | <i>8000</i> |